

a figure-of-eight was applied, and skin clips were used to close the skin.

The boy was returned to bed in poor condition.

Intravenous medication, Murphy drip, and cardiac stimulants were given. The following day his temperature went to 102 degrees, pulse 152, respiration 32. The patient was restless, moaning, and the pulse was irregular. Next day the pulse continued high, and the patient was restless. Intravenous medication was continued. The patient was irrational. The dressings were saturated with serosanguineous material.

The afternoon of the second day found the boy irrational. The pulse was 150, and the temperature went to 104 degrees; it dropped slightly that night, but the following day the temperature went to 105 degrees, then dropped to 103 degrees, again rose to 104½ degrees, and on the fourth day it dropped to 100 degrees. For about a week following this, his temperature ranged from 101 degrees to normal, and finally found the normal range until his recovery.

The first ten days were very stormy, but following this he rapidly regained in strength.

In the past year the boy has grown more vigorously; his general health has much improved. He has gained considerably in weight, and his gastro-intestinal tract has been functioning normally.

IN CONCLUSION

1. In making a diagnosis of appendicitis we should always attempt to eliminate diverticulitis.
2. In every acute abdominal condition diverticulitis should be included in differential diagnosis.
3. We should become Meckel's diverticulum conscious, and include its examination in all laparotomies.

6253 Hollywood Boulevard.

SCLERODERMA AND SCLERODACTYLIA: THEIR TREATMENT WITH FERMENTS AND TISSUE EXTRACTS*

By SAUL S. ROBINSON, M. D.
Los Angeles

DURING the past few years important investigations by Joseph Sellei,^{1, 2, 3, 4} of Budapest, have tended to show that scleroderma and sclerodactylia are two different disorders. Clinical, pathologic, and therapeutic studies have been performed to make this distinction. The difference in the response of scleroderma and sclerodactylia, respectively, to ferment and tissue extract therapy have been of especial value in the differentiation.

SIGNS AND SYMPTOMS

Scleroderma verum includes the diffuse, circumscribed, linear and morphoea forms of the disorder. Clinically, scleroderma is associated with little or no subjective symptoms, and trophic lesions are absent in the lesions. All types of true scleroderma show pathologic changes in the cutis and subcutaneous connective tissues, and respond favorably to treatment with ferments derived from the stomach, the duodenum, and the pancreas. These ferments must usually be given over long periods of time, and result in the indurated scleroderma plaques becoming softened and slowly resorbed. Functional dis-

turbances of the pancreas can be found in scleroderma from the positive reaction in the atoxyl lipase resistance test. This test is negative in sclerodactylia. The etiology of scleroderma is, therefore, considered to be a ferment disturbance of the pancreas and the skin.

Sclerodactylia, or acrosclerosis, as Sellei prefers to name the disorder, is characterized by the primary symmetrical involvement of the hands, the feet and the face. Vasomotor changes are found especially in the hands and feet, and consist of local syncope and local asphyxia associated with pain in cold weather. Trophic disturbances manifested by tissue shrinkage and ulcerations occurring at the finger tips are also found. The tissue shrinkage and skin contraction on the face produce a mask-like appearance. When scleroderma verum involves the hands, it spreads from the arm and forearms to the back of the hand and the fingers, and does not primarily involve the hands and the fingers as in sclerodactylia. Telangiectasia and involvement of the heart and the aorta are also frequently associated with sclerodactylia, and are absent in true scleroderma. Sclerodactylia responds to the vasodilators found in tissue extracts, and the muscle and skin extracts have especially been used with great benefit. Ferment therapy does not influence sclerodactylia objectively, although subjective improvement is reported.

ETIOLOGY

The etiology of sclerodactylia is considered to be an angiotrophoneurosis, due to disease of the sympathetic nervous system. It is believed that the direct cause of sclerodactylia is a "chemical substance" or endocrine gland disturbance involving the thyroid, parathyroid and suprarenal glands.

THERAPY

The ferment therapy of scleroderma: Fresh pancreatic ferments such as amylase, lipase, and trypsin, are given one hour before each meal in tablet form. The dosage is three tablets before breakfast, two tablets before luncheon, and two tablets before dinner. The total daily pancreatic tablet dosage is thus seven tablets. Instead of tablets, raw pancreas may be given in the dosage of one hundred to two hundred grams daily. Sellei recommends that the raw pancreas be served at breakfast in warm bouillon or mixed with potato puree. The pancreas ferment therapy can be supplemented by gastric and duodenal ferment tablets, taken in the dosage of two tablets twice daily. Liver-extract tablets and injections may also be given with the above therapy. Months to years of continuous treatment with ferments are necessary for beneficial results in scleroderma.

The tissue extract therapy of sclerodactylia: Vasodilators, such as acetylcholin, padutin, and muscle and skin extracts are given for a period of three to six months. Sharpe and Dohme tissue extract No. 568, given in the initial dosage of one cubic centimeter subcutaneously, and followed by three cubic centimeters twice a week, has proved to be of great value in the treatment of my cases of sclerodactylia.

1930 Wilshire Boulevard.

* From the Department of Dermatology, Cedars of Lebanon Hospital, Los Angeles.

1 Sellei, J.: Arch. f. Dermat. u. Syph., July, 1932.

2 Sellei, J.: Dermat. Ztschr., June 2, 1931.

3 Sellei, J.: München Med. Wchnschr., Oct. 7, 1932.

4 Sellei, J.: Brit. Journ. Dermat. and Syph., 46:523, 1934.